

Serial No. 10/828,745
Amdt. Dated June 9, 2007
Reply to Office action of May 10, 2007

Amendments to the Specification:

Please add the following new paragraph after paragraph [0020]:

[0020.1] FIG. 3 is a diagram depicting a vessel with multiple antennas and an orientation device.

Please replace paragraph [0050] with the following amended paragraph:

[0050] Further, in another exemplary embodiment, multiple antennas can be used to compute a solution of a single point on a rigid body to which they are attached, using known geometry and distances. Such an approach may be employed, for example, when not any one antenna provides enough useful information (satellites) to compute a location solution due to obstructions, but the conglomerate could. Advantageously, a position solution employing this approach would not necessarily have to utilize carrier-phase based differencing (it could be code phase). An application might include positioning on a barge 30 shown in Fig. 3, where location is needed but there are many cranes and towers blocking the view so that there is not one optimum GPS location. However, by placing ~~an antenna~~ antennas A1 and A2 respectively on either side of the barge 30, enough satellites could be tracked by the combined antenna arrangement that a solution of the location of some point on the barge could still be obtained. Furthermore, on ~~[[a]]~~ the barge 30, a compass 32 can also be used to give orientation, thus removing another unknown from the relative location of the two ~~receivers~~ antennas. Rather than solving a relative location of one ~~receiver antenna~~ with respect to another, using the combined receivers outputs of either antenna A1 or A2 and the compass 32 can be used to produce one non-relative location.